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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/545,689	04/07/2000	Richard John Blasiak	RAL9000022	2096
25299	7590	04/08/2004	EXAMINER	
IBM CORPORATION PO BOX 12195 DEPT 9CCA, BLDG 002 RESEARCH TRIANGLE PARK, NC 27709			ZHEN, LI B	
			ART UNIT	PAPER NUMBER
			2126	

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

file

# Office Action Summary

Application No.

09/545,689

Applicant(s)

BLASIAK ET AL.

Examiner

Li B. Zhen

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Claims 1 – 10 are pending in the application.

***Response to Arguments***

2. Applicant's arguments, see p. 3 – 6, filed March 22, 2004, with respect to the rejection(s) of claim(s) 1 – 10 under 35 USC § 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of 35 U.S.C. 102(b) as being anticipated by "Anonymous RPC: Low-Latency Protection in a 64-Bit Address Space" (hereinafter Yarvin).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1 – 10 are rejected under 35 U.S.C. 102(b) as being anticipated by "Anonymous RPC: Low-Latency Protection in a 64-Bit Address Space" (hereinafter Yarvin).**

5. As to claim 1, Yarvin teaches remote procedure calls in a multiprocessing system [cross-domain remote procedure call; p. 1, Abstract], the multiprocessing system

including a general purpose processor and a plurality of network processors [for cross-domain procedure calls with few arguments, the dominant cost is saving, clearing, and restoring the registers; Section 3.2.2, p. 5 – 6]; each of the plurality of network processors having a memory [processors with large register sets; Section 3.2.2, p. 5 – 6], comprising the steps of:

(a) accessing a reserved address [path of control must flow through some intermediary: an entity which is self protected, aware of the RPC binding; Section 3.1, p.4] in the memory of at least one of the plurality of network processors [host architecture supports execute-only page protection; Section 3.1, p. 4], the reserved address comprises a first portion [name] and a second [address] portion [registering an entry point, it gives the RPC manager the name and address of the procedure; Section 3.2.1, p. 5], the reserved address is known to a remote procedure call requestor [caller knows the address of the callee's text, but cannot damage that text or discover where the data might be; Section 3.1, p. 4], the second portion comprises a pointer [address] for an instruction address of a procedure code [registering an entry point, it gives the RPC manager the name and address of the procedure; Section 3.2.1, p. 5], the instruction address is not known to the remote procedure call requestor [to preserve anonymity, the path of control must flow through some intermediary...manage control and data flow without revealing either party's address to each other; cannot give the caller the actual entry point in the callee's code; Section 3.1, p. 4];

(b) initiating a software action by a first portion [jump instruction] of the reserved address [clients view of the remote call can simply be a function pointer whose target

Art Unit: 2126

address is the jump instruction in the anonymity table; p. 6, 3<sup>rd</sup> paragraph], wherein the software action comprises obtaining the pointer [entry point] in the second portion of the reserved address [contain the entry point as an immediate operand; Section 3.1, p. 4];

(c) accessing and processing the procedure code at the instruction address utilizing the pointer [use an execute-only jump table, synthesized to contain the entry point as an immediate operand; Section 3.1, p. 4].

6. As to claim 2, Yarvin teaches the reserved address comprises one instruction [use an execute-only jump table, synthesized to contain the entry point as an immediate operand; Section 3.1, p. 4].

7. As to claim 3, Yarvin teaches each of the network processors include a reserved address [host architecture supports execute-only page protection; Section 3.1, p. 4].

8. As to claim 4, Yarvin teaches the location of the reserved address of each network processor is known by the other processors [clients view of the remote call can simply be a function pointer whose target address is the jump instruction in the anonymity table; p. 6, 3<sup>rd</sup> paragraph].

9. As to claim 5, Yarvin teaches the reserved addresses [clients view of the remote call can simply be a function pointer whose target address is the jump instruction in the

Art Unit: 2126

anonymity table; p. 6, 3<sup>rd</sup> paragraph] of each network processor are in the same location of memory [caller knows the address of the callee's text; Section 3.1, p. 4].

10. As to claims 6 – 10, these are system claims that correspond to method claims 1 – 5; note the rejections to claims 1 – 5 above, which also meet these systems claims.

### ***Conclusion***

11. Applicant's amendment filed on October 20, 2003 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (703) 305-3406. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen  
Examiner  
Art Unit 2126

lbz  
April 5, 2004

  
**MENG-AL T. AN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**